CLAIMS:

- 1. An endoscopic imaging apparatus comprising: an endoscope including a distal end; at least one ultrasound transducer contained within said distal end; and a covering fabricated from an electrically insulating material having a Thermal Conductance greater than 1 W/M-°K overlaying at least a portion of said distal end.
- 2. The endoscopic imaging apparatus as in Claim 1, further comprising: controls for controlling the movement of the distal end; a signal processor for processing received signals from said at least one ultrasound transducer; and means for energizing the at least one ultrasonic transducer.
- 3. The apparatus as in Claim 1, wherein said covering is in thermal contact with the at least one ultrasound transducer.
- 4. The apparatus as in Claim 1, wherein said material is non-toxic.
- 5. The apparatus as in Claim 1, wherein said material is non-reactive in the presence of bodily fluids.
- 6. The apparatus as in Claim 1, wherein said material is selected from the group consisting of ceramic and diamond-coated copper.
- 7. The apparatus as in Claim 6, wherein the ceramic is an Alumina-based ceramic.
- 8. The apparatus as in Claim 1, wherein said material has a Thermal Conductance of approximately 30 W/M-°K.
- 9. An apparatus for dissipating thermal energy produced by an endoscopic imaging apparatus, wherein the apparatus is configured and dimensioned to mate with a distal end of said imaging apparatus for dissipating thermal energy produced at said distal end, said

apparatus fabricated from an electrically insulating material having a Thermal Conductance greater than 1 W/M-°K.

- 10. The apparatus as in Claim 9, wherein said material is selected from the group consisting of ceramic and diamond-coated copper.
- 11. The apparatus as in Claim 10, wherein the ceramic is an Alumina-based ceramic.
- 12. The apparatus as in Claim 9, wherein said material is non-toxic when in contact with a patient's internal structures.
- 13. The apparatus as in Claim 9, wherein said material is non-reactive in the presence of bodily fluids.
- 14. The apparatus as in Claim 9, wherein said material has a Thermal Conductance of approximately 30 W/M-°K.
- 15. A method for scanning a patient's heart using a TEE probe comprising of the steps of: providing an endoscope having a distal end having a portion thereof fabricated from an electrically insulating material having a Thermal Conductance greater than 1 W/M-°K; and guiding the endoscope including a distal end.
- 16. The method as in Claim 15, wherein said material is non-toxic.
- 17. The method as in Claim 15, wherein said material is non-reactive in the presence of bodily fluids.
- 18. The method as in Claim 15, wherein said material is selected from the group consisting of ceramic and diamond-coated Copper.
- 19. The method as in Claim 15, wherein the ceramic is an Alumina-based ceramic.

- 20. The method as in Claim 15, wherein said material has a Thermal Conductance of approximately 30 W/M-°K.
- 21. A device for passively dissipating thermal energy produced by at least one transducer located at a distal end of an endoscopic imaging apparatus, wherein said device is configured and dimensioned to encase the at least one transducer, said device having at least the following properties: electrically insulating;
- a Thermal Conductance greater than 1 W/M-°K; and substantially non-reactivity in the presence of bodily fluids.